

# PEAVEY ELECTRONICS

## **DTH™ 1** **Enclosure** *SPECIFICATIONS*

**Frequency Response:**

115 Hz - 15 kHz

**Low Frequency Limit (-3 dB point):**

115 Hz

**Useable Low Frequency Limit  
(-10 dB point):**

70 Hz

**Power Handling:**

Full range 300 watts continuous (34 Volts  
4 ohms)

Full range 600 watts program

Biamp lows 300 watts 34 V 4 ohms con-  
tinuous

Biamp lows 600 watts program

Biamp highs 80 watts 25 V 8 ohms con-  
tinuous

Biamp highs 160 watts program

**Sound Pressure Level 1 Watt at 1  
Meter Swept Sine Input in Anechoic  
Environment:**

Biamp low mids 103 dB, 10" Scorpion®

Biamp highs 110 dB, 44T, VHF Array

Full range 103 dB

**Maximum Sound Pressure Level:**

126 dB full range

**Transducer Complement:**

Two 10" Scorpion Plus mid range, one  
44T highs, One 4 element VHF array

**Crossover Frequency:**

1200 Hz/10 kHz

**Crossover Type:**

2nd order Bessel

**Crossover Slope:**

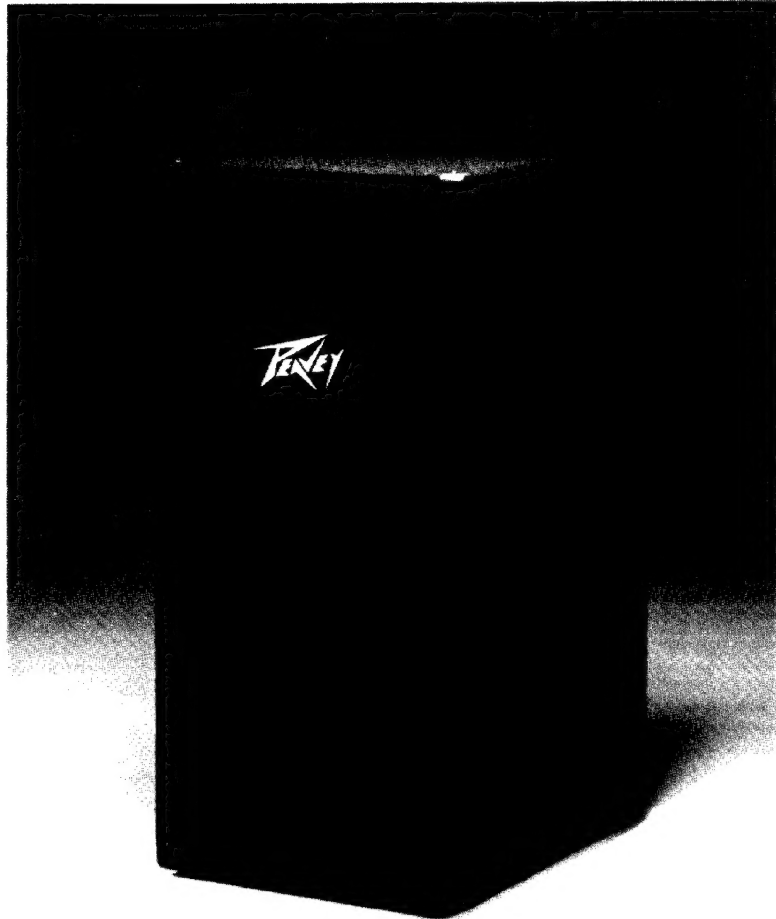
12 dB/oct

**Impedance (Nominal):**

Biamp mids 4 ohms

Highs 8 ohms

Full range 4 ohms



**Input Connections:**

4-pin Neutrik (NL4MP) mates to NL4FC  
to banana plugs

**Enclosure Materials and Finish:**

High density plywood, carpet covered,  
steel corners

**Dimensions:**

45" H x 21¼" W x 26¼" D

**Net Weight:** 180 lbs.

**Shipping Weight:** 186 lbs.

**FEATURES**

- Two 10" Scorpion Plus drivers
- 44T driver
- Full range or biamp configuration
- Durable black carpet
- Steel corners



## DESCRIPTION

The DTH 1 is a low mid to very high frequency enclosure with a nominal coverage geometry of 60° x 40°. The driver complement consists of two 10" Scorpion Plus drivers, one 44T driver, and one four element VHF horn.

The DTH 1 can be operated in full range or biamp mode via a four pin Speakon® connector and an internal switch. It can be used as low as 75 Hz for side fills. For optimum operations, the DTH™ Sub is recommended for a -3 dB point of 45 Hz. This system can be configured in biamp with a recommended crossover at 125 Hz or in triamp mode with recommended crossovers at 125 Hz and 1200 Hz.

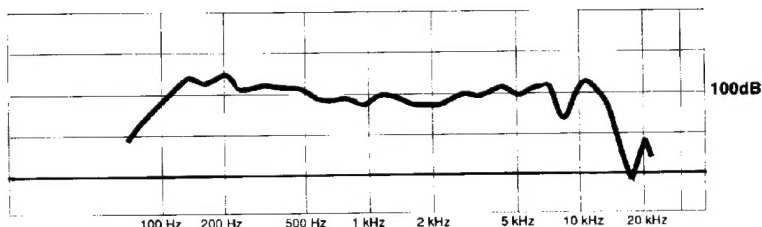
The DTH 1 cabinet is constructed of durable dado fitted wood for road worthiness. It is covered in a durable black carpet to resist scuffs and fitted with steel corners as insurance against corner splitting resulting from road use. The mid band horns are an integral part of the cabinet construction to give them an extra measure of robustness. Size, price, and great sound make the DTH 1 an irresistible bargain.

## DIRECTIVITY

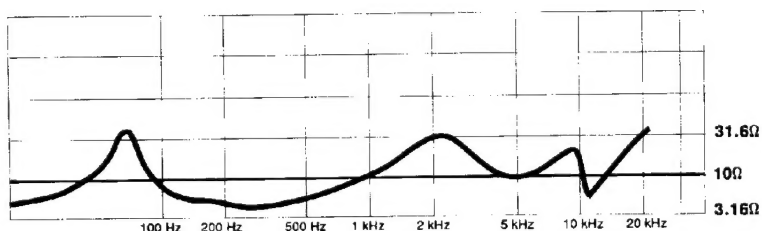
Beamwidth and directivity factors are derived from the -6 dB points from the polar plots which are measured in a whole space anechoic environment. These are specifications which provide a reference to the coverage characteristics of the enclosure. These parameters provide insight for proper enclosure placement and installation in the chosen environment. The blending of the components of the DTH 1 exhibits a desirable beamwidth and directivity factor suitable for all high-level sound reinforcement applications.

## FREQUENCY RESPONSE

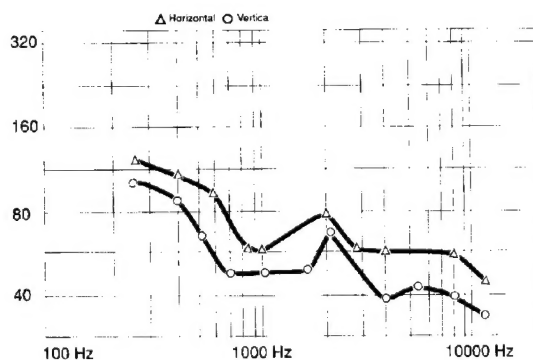
This measurement is useful in determining how accurately a given enclosure reproduces an input signal. The frequency response of the DTH 1 is measured at 1 meter using a 2 V swept sine input. The selected drivers in the DTH 1 combine to give a smooth frequency response from 115 Hz to 15 kHz.



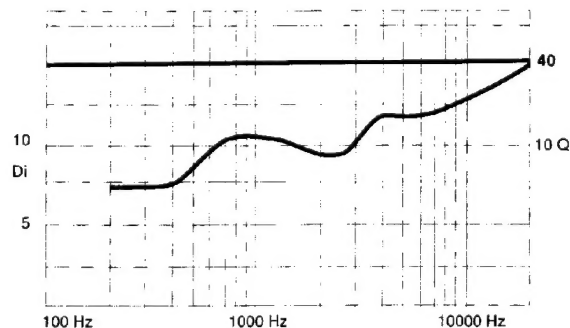
Anechoic: Frequency Response Curve Full Range



Impedance Curve Full Range

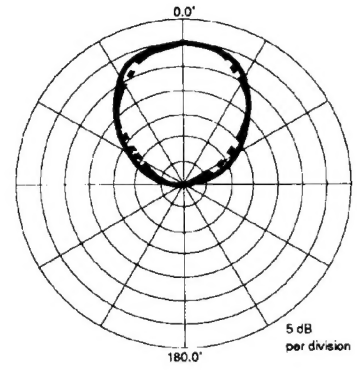
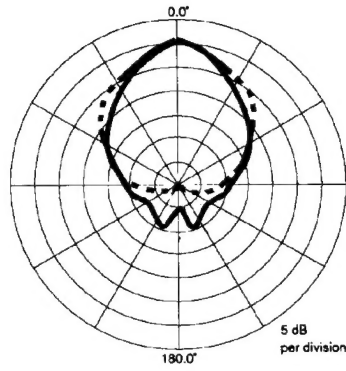
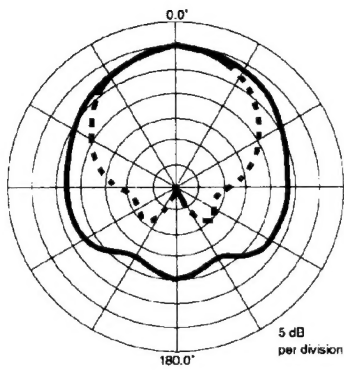


Beamwidth vs. Frequency



Directivity

# HORIZONTAL

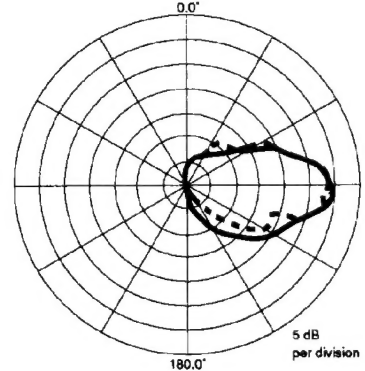
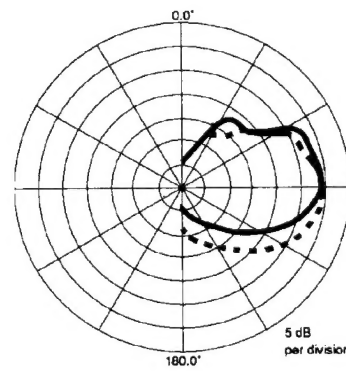
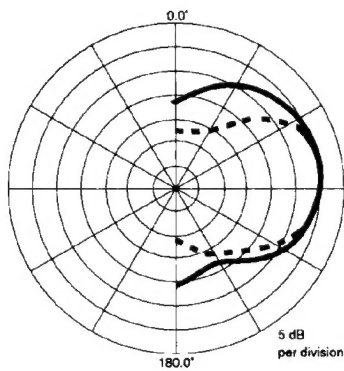


— 250Hz  
..... 500 Hz

— 1 Hz  
..... 2 Hz

— 4 Hz  
..... 8 Hz

# VERTICAL



# POLAR PATTERNS



**DTH™ 1**

A PRODUCT OF PEAVEY ELECTRONICS CORP.  
MERIDIAN, MS MADE IN U.S.A.

## FULL RANGE

**600W RMS**

(PROGRAM)

4 OHMS 40V RMS

**300W RMS**

(CONTINUOUS)

(34.8V RMS Cont.)

## LOWS

**600W RMS**

(PROGRAM)

4 OHMS 40V RMS

**300W RMS**

(CONTINUOUS)

(34.8V RMS Cont.)

## HIGHS

**160W RMS**

(PROGRAM)

8 OHMS 35.7V RMS

**80W RMS**

(CONTINUOUS)

(25.3V RMS Cont.)

## CAUTION

DO NOT USE THIS UNIT IN BI-AMP MODE WITHOUT  
MOVING INTERNAL JUMPERS. DIRECTIONS ON CROSS-  
OVER CIRCUIT BOARD.

## FULL RANGE

PIN 1+  
+ [ PIN 1-  
PIN 2+  
PIN 2- ] -

+

## BI-AMP

PIN 1+ LOW  
PIN 1- LOW  
PIN 2+ MID/HIGH  
PIN 2- MID/HIGH

## WARNING

THIS SPEAKER SYSTEM CAN PERMANENTLY DAMAGE  
HEARING! USE EXTREME CARE SETTING MAXIMUM LOUDNESS!

## POWER HANDLING

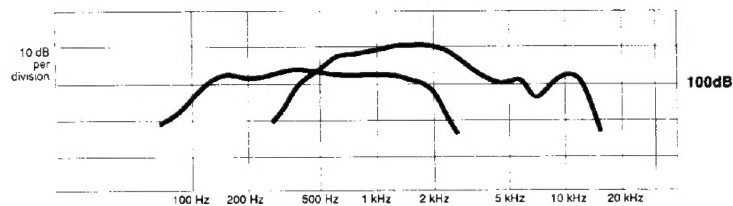
There are many different approaches to power handling ratings. Peavey rates this speaker system's power handling using a modified form of the AES Standard 2-1984. Utilizing audio band (20 Hz-20 kHz) pink noise with peaks over four times the RMS level, this strenuous test signal assures the user that every portion of this system can withstand today's high technology music. The test signal contains large amounts of very low frequency energy, effectively simulating the frequency content of live music situations. The full measure of high frequencies in the test signal allow for exposure of the speaker system to synthesized tone that may extend beyond audibility. This rating is contingent on having a minimum 3 dB of amplifier headroom available.

## ARCHITECTURAL & ENGINEERING SPECIFICATIONS

The loudspeaker system shall have an operating bandwidth of 115 Hz to 15 kHz. The output level shall be 103 dB when measured at a distance of one meter with an input of one watt. The nominal impedance shall be 4 ohms. The continuous power handling shall be 300 watts, maximum program power of 600 watts, with a minimum amplifier headroom of 3 dB. The nominal radiation geometry shall be 60 degrees in the horizontal plane and 40 in the vertical plan. The outside dimensions shall be 21 1/4" wide by 45" high by 26 1/4" deep. The weight shall be 180 pounds. The loudspeaker system shall be a Peavey model DTH 1.

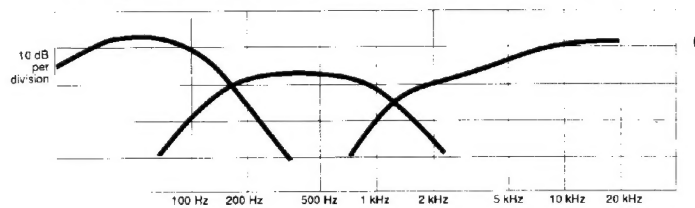
## ONE YEAR LIMITED WARRANTY —

**NOTE:** For details, refer to the warranty statement. Copies of this statement may be obtained by contacting Peavey Electronics Corporation, P. O. Box 2898, Meridian, Mississippi 39302-2898.



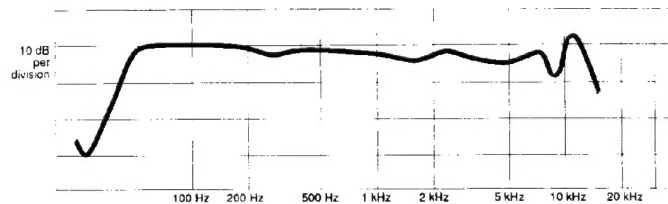
**DTH1 Low: High Band Curves**

**Bi-Amp Mode: User must set crossover for mid to high point**



**Recommended cross-over setting for DTH Sub and DTH 1 Triamp mode.**

	Level	Crossover Point	EQ	Delay
<b>Low:</b>	0 dB	125 Hz	None	.7 ms
<b>Mids:</b>	-11 dB	125/1200 Hz	None	0
<b>Highs:</b>	+5 dB	1200 Hz	12 dB Horn EQ	.5 ms



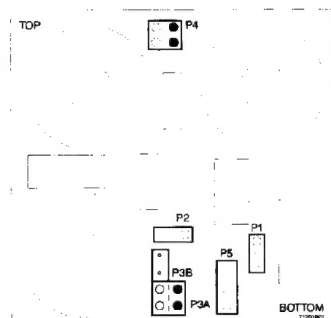
**Anechoic System curve of DTH 1 and Sub with recommended crossover points, delay settings, and level settings**

### INSTRUCTIONS for BI-AMP and FULL RANGE CONNECTIONS

**BI-AMP MODE**  
Move P1 to P2 (Yellow & Blue Wires)  
Move P3A to P4 (Red Square Jumpers)  
Move P5 to P3B (Yellow, Blue, Red and Black Wires)

**FULL RANGE OPERATION**  
Reverse order of Bi-Amp Operation  
Example: Move P3B to P5 etc.

**NOTE:**  
P3A Jumper wires should be parallel to bottom of board



Features and specifications subject to change without notice.

Peavey Electronics Corporation 711 A Street / Meridian, MS 39302-2898 / U.S.A. / (601) 483-5365 / Telex: 504115 / Fax: 484-4278

©1993

#80301658

Printed in U.S.A. 1/93